Excerpts from

Creating the Urban Forest: The Bare Root Method

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Transplanting is Traumatic

Whether from a nursery field to the city tree lawn or just from one place in your yard to another, it's the roots that suffer when trees are transplanted.

Consider this: shade tree roots are found pri-marily in the **top 12 inches** of soil. Tiny absorbing roots, responsible for most of the tree's intake of water and nutrients, are in the **top several inches** of soil. Roots not only grow horizontally beyond the dripline, there often is a **higher percentage of them beyond the dripline** than within it.

An unbelievable **90% of tree roots are routinely left behind in the nursery** at the time of harvest. The fine absorbing roots that are harvested are easily broken off, damaged and desiccated. **Water stress**, resulting in part from the tremendous reduction in root mass, is the main reason transplanted trees fail.

Planting Bare Root Trees & Shrubs

• Store trees in a cool, shaded place until ready to be planted. The sooner you plant, the better.

• Carry the tree, with roots still bagged, to the planting site. Lay the tree on its side and remove all string and nursery tags.

• Prune only dead or broken branches. At this stage the tree needs all the potential leaves it can get.

• Dig the planting hole wide and shallow. Do not loosen the soil that will be underneath the root system; instead concentrate on creating loose soil horizontally for the spreading roots. The hole should be 2-3 times wider in all directions than the root spread. A hint for loosening soil: use the hole you are digging as a “bowl” to first break up the soil clods, then shovel the loosened soil out.

• Turf surrounding the tree should be completely removed so it doesn’t compete with the newly planted tree for water.

• Remove the tree from the plastic bag and stand it upright in the hole. Plant the tree so that the begin-ning of the root flare is visible at soil level. It is critical not to plant the tree too deep. Lay your shovel across the hole to see where the shovel meets the root flare and adjust the planting depth accordingly. If you anticipate settling of the soil, plant a little high. *It is better to plant too high than too deep.*

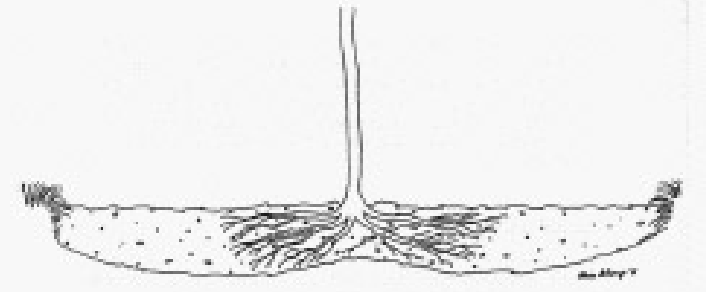
• Check to see that the tree is plumb, then backfill with the native soil that you have removed. Do not use amendments in the planting hole. When you’ve replaced half of the backfill, water the hole to help collapse air pockets. Alternatively, use the opposite, wood end of your shovel to gently poke out air pockets. Finish backfilling, and gently firm soil. Be sure the soil is not mounded against the trunk and that the beginning of the root flare is showing above ground.

• Mulch over the entire rooting area with 2-4" of wood chips or shredded bark mulch. The farther out you mulch, the better. Don’t let mulch mound against the trunk since this could create a favorable environment for fungi.

• Fertilizer is not recommended for newly planted trees.

• Staking is not necessary and can even be detri-mental for most young trees. The exceptions: an extremely windy site, a tree with an unusually small root system or an unusually large sail/canopy relative to a tree’s root system. A final reason to stake is to protect trees in high traffic areas where vandalism is feared. Young trees are less likely to be vandalized when staked.

• Maintenance: Mulch should be maintained at a depth of 2-4". If you use stakes or guy wires, remove these devices after one year to prevent girdling of the tree.



Dig the planting hole shallow and wide, at least three times the diameter of the tree roots. The beginning of the root flare should be at soil level.

This method works for us but success depends on many factors and each situation will be unique.

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